



1762

**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Shunichi SEKI et al.

Group Art Unit: 1762

Application No.: 09/701,534

Examiner: M. Cleveland

Filed: November 30, 2000

Docket No.: 107291

For: METHOD FOR FORMING SILICON FILM AND INK COMPOSITION FOR INK JET

**SUPPLEMENTAL REMARKS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Further to the July 8 Amendment After Final Rejection, reconsideration of the rejection is respectfully requested in light of the following supplemental remarks.

Claims 1-23 are pending.

The Advisory Action asserts that Applicant argues that Winkler does not provide a specific example that demonstrates the synthesis of  $\text{Si}_6\text{H}_{12}\text{P}_2$  in a liquid. However, the July 8 Amendment argues that Winkler discloses the synthesizing method of  $\text{P}(\text{SiMe}_2)_6\text{P}$ , not the synthesizing method for  $\text{Si}_6\text{H}_{12}\text{P}_2$ .

In addition, the July 8 Amendment argues that neither Yudasaka (Yudasaka II) nor Margrave do not disclose a method for forming a silicon film including a silicon compound  $\text{Si}_a\text{X}_b\text{Y}_c$  where X represents a hydrogen atom, as recited in dependent claim 7 and independent claims 16 and 23. Thus, the July Amendment does not argue against the references individually, as asserted by the Advisory Action.

The rejections under the judicially created doctrine of obviousness-type double patenting over U.S. Patent Nos. 6,527,847 and 6,503,570 are respectfully traversed. Specifically, the claims of U.S. Patent Nos. 6,527,847 and 6,503,570 do not render obvious the invention recited in claims 1-23.

Claim 1 of U.S. Patent No. 6,527,847 discloses a coating composition comprising a silicon compound represented by the formula  $\text{Si}_n\text{X}_n^1$  where n is an integer of 4 or more. Claims 5, 7, 14, 16 and 23 of the present application recite a silicon compound  $\text{Si}_n\text{X}_m$ , where n represents an integer of 3 or more. The range is directly correlated with a specific element of a compound, which is not disclosed in the claims of U.S. Patent No. 6,527,847.

In addition, claim 6 of U.S. Patent No. 6,527,847 discloses a coating composition comprising a modified silane compound represented by the formula  $\text{Si}_n\text{X}_m^2\text{Y}_1$ , where m is an integer of n to  $2n+3$ . Claims 6, 7, 15, 16 and 23 of the present application recite a silicon compound  $\text{Si}_a\text{X}_b\text{Y}_c$ , where b is an integer of  $2a+c$  or  $2a+c+2$ . Thus, claims 1, 4, 6 and 9 of U.S. Patent No. 6,527,847 do not render obvious the inventions recited in claims 5-7, 14-16 and 23. Yudasaka '698, Kotaro '821 and Taniguchi '572 do not make up for the deficiencies of U.S. Patent No. 6,527,847.

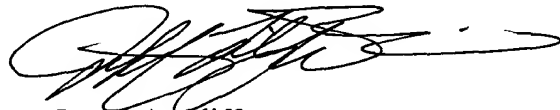
Claims 1-10 and 15 of U.S. Patent No. 6,503,570 disclose a process for forming a silicon film on the surface of a substrate including coating the surface of the substrate with a composition comprising cyclopentasilane and silylcyclopentasilane. Claim 1 recites a method for forming a silicon film including "applying by patterning an ink composition containing a silicon compound onto a substrate by an inkjet process." Claim 14 recites an ink-jet ink composition including a silicon compound represented by  $\text{Si}_n\text{X}_m$ , where n represents an integer of 3 or more and m represents an integer of n,  $2n-2$ , or  $2n$ . Thus, claims 1-10 and 15 of U.S. Patent No. 6,503,570 do not render obvious the invention recited in claims 1-5, 8, 10-

14, 17 and 19-22. Yudasaka '698, Kotaro '821 and Taniguchi '572 do not make up for the deficiencies of U.S. Patent No. 6,503,570.

For at least these reasons, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-23 are earnestly solicited.

Should the Examiner believe that anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,



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Date: August 14, 2003

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